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Product datasheet for TA328620

KCNK1 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide RQELRKLKRRFLEEHEC, corresponding to amino acid residues 53-69 of human K2P1.1.Extracellular, near the P1 loop.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: Phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.025% NaN3.
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	potassium two pore domain channel subfamily K member 1
Database Link:	NP_002236 Entrez Gene 16525 MouseEntrez Gene 59324 Rat O00180

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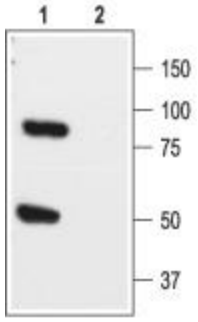
Background: K2P1.1 (also named TWIK-1 or KCNK1) is a member of the 2-pore (2P) domain K+ channels family that at the moment includes 14 members. These channels show little time or voltage dependence and are considered to be â??leakâ? or â??backgroundâ? K+ channels, thereby generating background currents which help set the membrane resting potential and cell excitation. The K2P channels have a signature topology that includes four transmembrane domains and two pore domains with intracellular N- and C termini. K2P channels are regulated by diverse physical and chemical stimuli including temperature, pH, mechanical stretch, inhalation anesthetics, etc. but are insensitive to the classical K+ channel blockers. K2P1.1 was the first of the K2P channels to be identified and as its original name indicates (Tandem of P domains in a Weak Inward rectifier K+ channel) the channel behaves as a weak inward rectifier when expressed in heterologous systems. The channel is ubiquitously expressed with the most prominent expression in the brain, kidney and heart. We have now produced a novel antibody directed against a highly conserved epitope in the extracellular region of the human K2P1.1 channel. The antibody will also react with rat and mouse samples.

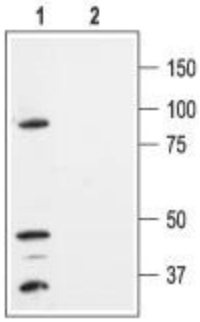
Synonyms: DPK; HOHO; K2P1; K2p1.1; KCNO1; TWIK-1; TWIK1

Protein Families: Druggable Genome, Ion Channels: Potassium, Transmembrane

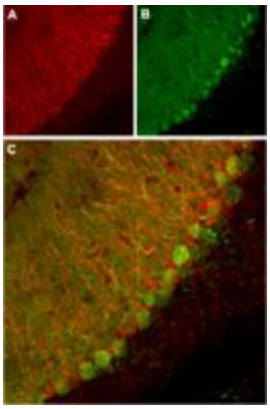
Product images:



Western blot analysis of rat brain lysate: 1. Anti-K2P1.1 (TWIK-1) (extracellular) antibody, (1:200). 2. Anti-K2P1.1 (TWIK-1) (extracellular) antibody, preincubated with the control peptide antigen.



Western blot analysis of HEK-293-K2P1.1 transfected cells: 1. Anti-K2P1.1 (TWIK-1) (extracellular) antibody, (1:300). 2. Anti-K2P1.1 (TWIK-1) (extracellular) antibody, preincubated with the control peptide antigen.



Expression of K2P1.1 in mouse cerebellum. Immunohistochemical staining of mouse cerebellum using Anti-K2P1.1 (TWIK-1) (extracellular) antibody. A. K2P1.1 channel appears in glial processes (red). B. staining of Purkinje nerve cells with mouse anti calbindin D28K (a calcium binding protein, green). C. Confocal merge of K2P1.1 channel and calbindin D28K demonstrates the separate localization of these proteins.